

REMARKS/ARGUMENTS

These remarks are submitted in response to the Final Office Action of June 9, 2010 (Office Action). The amendments are supported by the specification and drawings. No new matter has been added. Authorization is given to charge the fees for the Request for Continued Examination and the request for three-month extension of time, along with any necessary fees, to Deposit Account No. 50-5199.

I. Rejections Under 35 U.S.C. §102

Claims 1, 7-11 and 24-25 were rejected under 35 U.S.C. 102(e), as being anticipated by U.S. Patent No. 6,404,614 to Zhu *et al.* (hereinafter 'Zhu'). These rejections are respectfully traversed. Claims 1, 7-11, and 24-25 recite adjusting an amount of only one metal oxide material of the at least two additional metal oxide materials during the mixing of the particles to change a dielectric constant of the electronically tunable dielectric material while maintaining a tunability and a dielectric loss of the electronically tunable dielectric material substantially the same. Claims 32-42, which were not addressed by the Office Action, also include this feature. The cited portions of Zhu describe the use of at least one electrically tunable dielectric phase:

The tunable dielectric material can comprise at least one electronically tunable dielectric phase, such as barium strontium titanate, in combination with other compounds. Barium strontium titanate of the formula $Ba_x Sr_{1-x} TiO_3$ is a preferred electronically tunable dielectric material due to its favorable tuning characteristics, low Curie temperatures and low microwave loss properties. In the formula $Ba_x Sr_{1-x} TiO_3$, x can be any value from 0 to 1, preferably from about 0.15 to about 0.6. More preferably, x is from 0.3 to 0.6. (Zhu col. 4, lines 26-34).

However, the cited portions of Zhu do not anticipate the feature of adjusting an amount of only one metal oxide material of the at least two additional metal oxide materials during the mixing of the particles to change a dielectric constant of the electronically tunable dielectric material while maintaining a tunability and a dielectric loss of the electronically tunable dielectric material substantially the same, as in claims 1, 7-11, 24-25 and 32-42.

Claims 1, 3, 7, 11 and 24-25 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,737,179 to Sengupta (hereinafter 'Sengupta'). These rejections are respectfully traversed. Claims 1, 3, 7, 11 and 24-25 recite adjusting an amount of only one metal oxide material of the at least two additional metal oxide materials during the mixing of the particles to change a dielectric constant of the electronically tunable dielectric material while maintaining a tunability and a dielectric loss of the electronically tunable dielectric material substantially the same. Claims 32-42, which were not addressed by the Office Action, also include this feature. The cited portions of Sengupta describe the use of a thick film, composite material preferably comprising a BST electronically tunable phase. (Sengupta col. 5, lines 21-33). However, the cited portions of Sengupta do not anticipate the feature of adjusting an amount of only one metal oxide material of the at least two additional metal oxide materials during the mixing of the particles to change a dielectric constant of the electronically tunable dielectric material while maintaining a tunability and a dielectric loss of the electronically tunable dielectric material substantially the same, as in claims 1, 3, 7, 11, 24-25 and 32-42.

Claims 1, 3, 7, 11 and 24-25 were rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,514,895 to Chiu (hereinafter 'Chiu'). These rejections are respectfully traversed. Claims 1, 3, 7, 11 and 24-25 recite adjusting an amount of only one metal oxide material of the at least two additional metal oxide materials during the mixing of the particles to change a dielectric constant of the electronically tunable dielectric material while maintaining a tunability and a dielectric loss of the electronically tunable dielectric material substantially the same. Claims 32-42, which were not addressed by the Office Action, also include this feature. The cited portions of Chiu describe the use of an electronically tunable dielectric material preferably comprising BST. (Chiu col. 4, lines 5-26). However, the cited portions of Chiu do not anticipate the feature of adjusting an amount of only one metal oxide material of the at least two additional metal oxide materials during the mixing of the particles to change a dielectric constant of the electronically tunable dielectric material while maintaining a tunability and a dielectric loss of the electronically tunable dielectric material substantially the same, as in claims 1, 3, 7, 11, 24-25 and 32-42.

CONCLUSION

It is believed that this application is in condition for allowance, which action is respectfully requested. It is requested that the Examiner call the undersigned if clarification is needed on any matter within this Amendment, or if the Examiner believes a telephone interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,

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